-- Light Fogging - And Chemical Fogging --

(How to tell the difference)

As everyone who reads this Facebook Page knows that I recently took one of my “Rest and Reflection” trips to a place in the State of Missouri (Alley Spring and Mill Site on the Jack’s Fork River - along with Big Spring on the Current River. As always, I took my “crank-up” camper that is equipped with a darkroom area in the rear compartment. After two days of doing nothing very productive - outside of just being my lazy self - I took the 8X10, 5X7, and 4X5 cameras out for a little exercise in working with paper negatives.

After dinner, and the usual after-dinner beverage of choice, I waited till total darkness fell over the campground. I always choose in advance as to the “camping slot” that would be the deepest shade. Because of no moonlight, as the sky was totally overcast, I was assured of no moonlight casting itself on the camper. The time came to develop my days work with development. I already have mixed up some fresh “Ansco 120" developer and the Stop and Fixer were still good, I set out the three trays to do the job at hand.

I first developed the 8X10's and was surprised that I could see that somehow the Ansco 8X10 had a “*light-leak*”. All of the images from the holders had the same areas showing this problem. So I would have to repair this at home - I made the choice as to not use the Ansco any more on this outing.

Next was the Burke & James 5X7 images. Some of these appeared to have a “chemical fogging” to them. I had “*thought*” that I used the same paper as I did on a previous, shoot and “*thought*” that these would be good. **I was wrong**. I also took notice that the paper which looked chemically fogged was a little darker on the reverse side of the paper. And others - from a different box and different brand of paper was clean pure white. Right away I thought that I had a box of “***bad paper***”. So the only thing to do is to toss it out to the trash. That is about two hundred 5X7 sheets gone. This is the number one reason as to being careful when buying out of date papers. It is not so much the expiration date - and more about how it was stored.

This was the first time I have had problems with expired outdated photo materials. I have used with absolutely no problems with photographic papers that I found stored at my father house from 1968. These papers were in his basement - and were always kept dry and cool. *(The exception was one open box that had been exposed to light.... Most likely by my father who was curious as to what’s in the box - and opened it. He never told me about this incident - however I know my father.)*

(See Results below - Both front where the emulsion is, and the reverse side.)

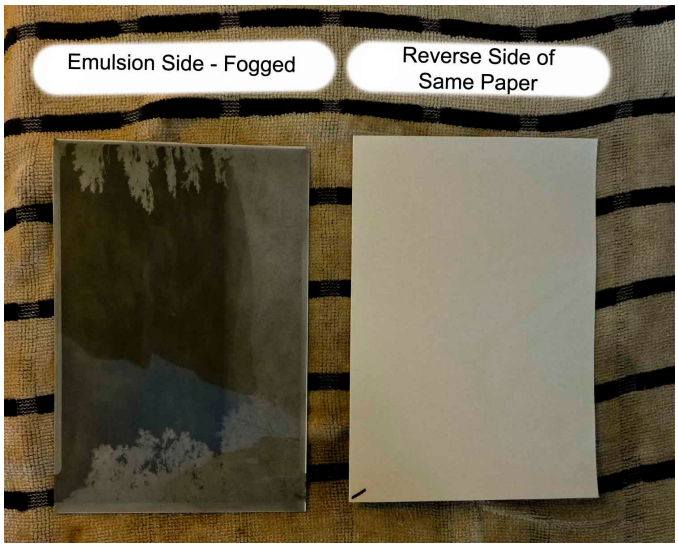

Figure - One

Figure - Two

Figure Three

After development, I noticed a very different color tone to the papers I had used. Looking at Figure One - This negative shows something odd as in contrast to Figure Two. Looking at the backs of both papers used the badly fogged one was also the one that was somewhat poorly developed. Not the case, I assure you - as both of the negatives were in the same developer and developed at the same length of time.

What is the difference between “Chemical Fogging” and that of “Light Fogging”? Chemical fogging occurs in two different, but similar looks. Light fogging comes from light leaking into the camera when the safety slide is removed. It may appear as a streaking of light from pinholes in the bellows, the film holder that may have cracks in the parts that was joined together, or where the dark-slide slot is on the holder. And too, the light leak may come from the front lens board, or the back of the focal plane area, as where the film holder mates with the camera body’s rear standard. These are rather easier to detect than chemical fogging.

Chemical fogging can come in where the developer is too strong of a dilution (i.e. = using a 1:1 or 1:2 for developing paper negatives). Or developer that is oxidized and has lost most of it’s ‘*power*’ to bring an image into full development. Also chemical fogging might occur from improper storage where the photographic emulation has “*reacted*” from the heat of an attic, storage locker, and or humid areas. The humid areas are rather easy to detect as the sheets of paper almost feel like they are “*glued*” together, when separated - as well as give off a *“musty order”*. Most often chemical fogging from storage of papers for a long time, even you can not see the *discoloration* of the back of the paper under the safelight in the darkroom, can still be present.

The best way to check to see if the photo-paper is good for use, is to **test** it. I will now test ALL photographic papers I use - even if they are in a **sealed box**. And it is a very simple procedure. 1.) In the darkroom under a safelight, open the box of paper and closely examine all of the paper. If there is a musky odor, or a faint off white to the back of the papers - This may be suspect as to a moisture and heat chemical fogging problem. 2.) Cut a few of the papers from the top - middle - and bottom sheets to load in holders and go out to make tests in a camera. Then develop... If you see ANY off-white coloring to any of these tests - Yep! = *You got bad paper*. Also you may notice the areas around the paper where the light from the lens did not effect the darkening of the sides of the paper. These areas are from the holder’s guides and kept the light from the paper. (In ‘normal’ conditions these should be almost “pure paper white” = See Figure Three and look carefully at the edges of the image. Shown is the off-white coloring of these edges. Another way to see if the paper is good is to just develop three sheets from the box.) One from the top. One from the middle. And one for the bottom. Again = If any discoloration is seen after one or two minutes of development = Yeah! You have *bad paper*. However = If these three sheets are “totally white” = Congratulations = You have some good product to work with.

To know when you are having problems with the photo-paper you are making use of = you Must know what it will look like. Below - Figures 4 & 5 = are examples of how bad paper looks and good paper should appear. (These are the most resent photo-negatives from my resent trip).

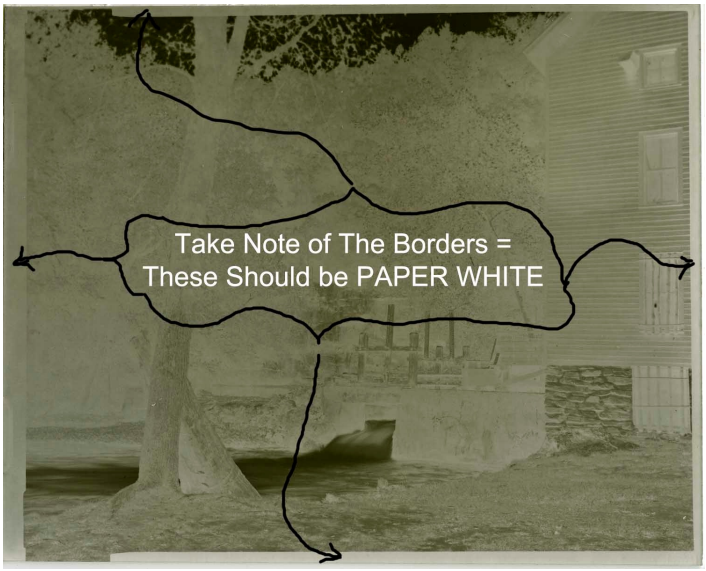

Figure 4

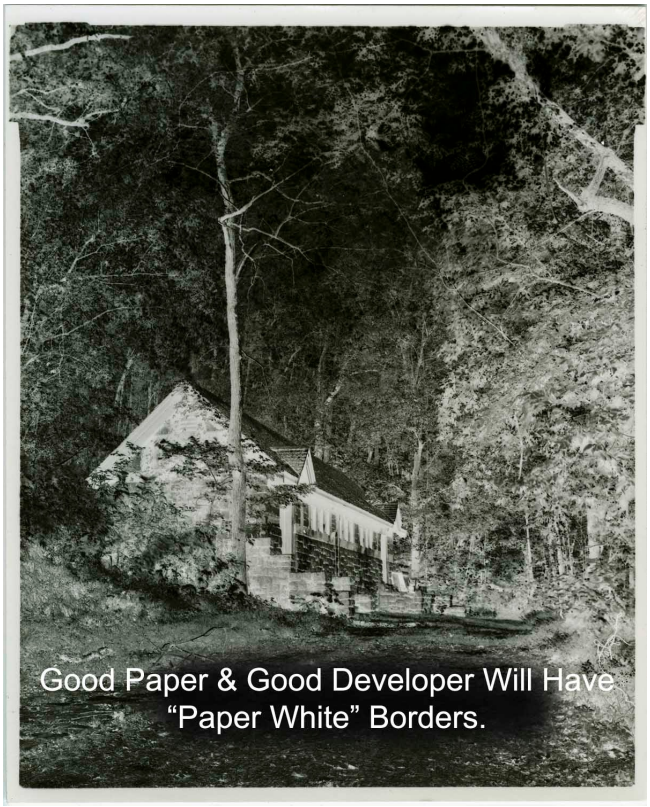

Figure 5

NOTE >>>>>

The meaning I use here about the Term "PAPER WHITE" = I am referring to the "given whiteness" of the different photographic papers that was available from manufactures.... Not ALL are what would be termed "pure white".

I do hope that this article is clear to ALL of the members, as different peoples from different lands are reading this. And I do hope that my "American English" translates to an understandable reading.

Thank you for taking the time to read this article.

James R. Kyle, Photographer

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9-30-2020